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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/514,113	02/28/2000	Frank B. Dean	MSI 100	9257

23859 7590 07/16/2003

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EXAMINER
SISSON, BRADLEY L

ART UNIT	PAPER NUMBER
1634	

DATE MAILED: 07/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/514,113	DEAN ET AL.	
	Examin r	Art Unit	
	Bradley L. Sisson	1634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

P riod for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 January 2003 and 16 June 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19,21-23,27,31-45 and 77-80* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19,21-23,27,31-45 and 77-80* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

1. Acknowledgement is made of the filing of an amendment on 16 January 2003 wherein claims 1, 21, 23, 77-80 were amended. Claims 1-19, 21-23, 27, 31-45, and 77-80 are pending.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-19, 21-23, 27, 31-45, and 77-80 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claims 1, 21-23, 44, 45, 77, 79, and 80 provides for the use of template deficient oligonucleotides, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced. Claims 2-19, 27, 31-45, and 78, which depend from independent claims 1, 23, 77, 79 and 80, fail to overcome this issue and are similarly rejected.

5. Claims 1-19, 21-23, 27, 31-45 and 77-80 are is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under

35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd. App. 1967) and *Clinical Products, Ltd.* v. *Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Response to argument

6. At page 3 of the response received 16 January 2003, hereinafter the response, applicant asserts that the rejection of claims under 35 USC 112, second paragraph, as well as under 35 USC 101 has been overcome as a result of amendment to claims 1, 23, 77, 79, and 80 whereby the claims recite "conducting a nucleic acid amplification reaction."

7. The above argument and amendment has been fully considered and has not been found persuasive towards the withdrawal of the rejection. The claims do not recite any positive method steps that particularly point out or distinctly claim just what steps are to be practiced in connection with this reagent. While the claims now refer in general terms to a process (amplification), no active method step, as it relates to the reagent to be "used" has been articulated. Accordingly, and in the absence of convincing evidence to the contrary, the rejection is maintained. Applicant is encouraged to either amend the clams whereby specific, positive method steps are recited that detail how the reagent is used, and/or consider adopting a Jepson format wherein the improvement is the substitution of primers that comprise a template-deficient nucleotide for primers that do not have such a composition.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

9. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

10. Claims 1, 5, 8-10, 19, 22, and 77 are rejected under 35 U.S.C. 102(a), (e) as being anticipated by Wallace (US Patent 6,027,923).

11. Wallace, columns 9 and 10, disclose the use of primers that contain a non-replicable element wherein said primers are used in a nucleic acid amplification reaction. Figures 3-5 show that the modified nucleotide is located several bases upstream, or 5', to the template capable portion of the primer.

12. Wallace, column 9, third and fourth paragraphs, disclose the use of abasic nucleotides in primer used in an amplification reaction. The teaching of "primers that contain non-replicable and/or cleavable elements" (column 9, lines 18-19) has been interpreted as there being a plurality of such nucleotides in a primer. Also, column 9, lines 32-33, teaches the presence of "a residue" in a primer. Accordingly, Wallace is considered to teach the use of one or more such abasic nucleotides.

Response to argument

13. At page 5, bridging to page 6 of the response applicant states:

> The rejection asserts that Wallace *et al.* discloses the use of primers that contain a non-replicable element in a nucleic acid amplification reaction. While this statement is generally correct, the Examiner misconstrues the particular amplification processes disclosed in Wallace *et al.* and arrives at an overly broad interpretation of the composition of primers disclosed therein. In particular, the Office Action asserts that the primers disclosed in Wallace *et al.* are used in repeated rounds of amplification," citing Wallace *et al.* at col. 2, lines 44-48. Such an assertion is inaccurate because it equates a successive round of amplification with a successive generation of a primer extension product. It is important to note that the primers of Wallace *et al.* are used to generate only first and second generation primer extension products. See Wallace *et al.* at col. 2, lines 44-48. Significantly, no third generation primer extension products are produced in Wallace *et al.*, even though there may be three or more rounds of amplification." For example, if there were, say, five rounds of amplification according to the methods of Wallace *et al.*, no fifth generation primer extension product would be produced, just more first and second generation primer extension products. In other words, while the primers disclosed in Wallace *et al.* may repeatedly prime the replication of an original template DNA strand to produce first generation primer extension products, and repeatedly prime the replication of a first generation primer extension product to produce second generation primer extension products, there is no production of a third (or higher) generation primer extension product because second generation primer extension products "cannot serve as templates for the synthesis of extension products." Wallace et al. at col. 2, lines 49-53. The fact that the primers disclosed in Wallace et al. do not and cannot prime the replication of second (or higher) generation primer extension products is evidence of why they do not anticipate the claimed invention; this is more fully explained below.

The presently claimed method does not define what type of amplification is to take place; accordingly, the claims have been interpreted as encompassing all forms of amplification, including both linear and exponential amplification. While agreement is reached with Applicant in that the full length of primers of Wallace *et al.*, may not be amplified, and that under certain embodiments the primers may not be amplified at all, such does not overcome the instant rejection as the use of primers to make copies of one or both strands of a template meets the limitation of linear amplification- an embodiment encompassed by the claims at issue. None of the claims currently before the Office and subject to the instant rejection require that the primers be used as a template for further rounds of amplification.

14. At page 6 of the response applicant directs attention to columns 5 and 6 of Wallace *et al.*, as teaching the inability of the disclosed prior-art method of result in amplification. Upon review, however, it is plainly seen at column 5, lines 44-48, that the method disclosed is one of "linear amplification." As indicated above, the claimed method encompasses just such an embodiment. While applicant may well envision alternative embodiments, the claims are not so limited and to argue limitation not found in the claims has not been found to be persuasive towards the withdrawal of the rejection. Accordingly, and in the absence of convincing evidence to the contrary, the rejection is maintained.

Claim Rejections - 35 USC § 102/103

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

16. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

18. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

19. Claims 1-19, 21-23, 27, 31-45 and 77-80 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Van Ness et al.

20. Page 6, bridging to page 7 of the specification reads in part:

> Template-deficient nucleotides are selected from the group consisting of modified nucleotides, derivatized nucleotides, ribonucleotides, and nucleotide analogs. Preferred template-deficient nucleotides are modified nucleotides. Preferred modified nucleotides are abasic nucleotides. Template-deficient nucleotides include abasic nucleotides, nucleotides with an inverted base, fluoro substituted nucleotides, alkyl substituted nucleotides, nucleotides with phenyl substituted ethers, nucleotides with substituted thioethers, nucleotides with substituted esters, α-nucleotides, 2', 3'-dideoxy nucleotides, ribonucleotides, nucleotides derivatized with biotin, nucleotides derivatized with amine, nucleotides derivatized with Hex, nucleotides derivatized with Tet, nucleotides derivatized with Fam, nucleotides derivatized with fluorescein, nucleotides derivatized with rhodamine, nucleotides derivatized with alkaline phosphatase, nucleotides derivatized with horseradish peroxidase, nucleotides derivatized with spacers, nucleotides derivatized with cholesteryl, nucleotides derivatized with DNP-TEG, nucleotides derivatized with psoralen cross-linkers, nucleotides derivatized with intercalating agents, and nucleotides derivatized with PNA conjugates.

21. In view of the definition of "template-deficient nucleotides" that has been provided, the claims have been interpreted to encompass the use of primers that are abasic as well as simply being labeled or stained with an intercalating agent.

22. Van Ness et al., at columns 82-85 disclose performing amplification reactions where one or more abasic nucleotides are incorporated into a primer. As seen in TABLE 14, at least one of the primers contained modified nucleotides located at the 5' terminus, other primers contained modified nucleotides within three nucleotides of the 5' terminus. Column 84 depicts several of the primer sequences. As seen therein, different modified nucleotides were incorporated in the primers.

Example 6

Introduction of an Abasic Site into an Oligonucleotide Increases the HCT of the Oligonucleotide and Improves Priming Specificity

As demonstrated above (Example 3), an abasic site or mismatched site introduced into an oligonucleotide primer decreases the T_d and HCT of the respective derived primer compared to a perfectly based pair "sister" primer. Abasic sites in polynucleotides or oligonucleotides can be introduced by the chemical or enzymatic hydrolysis of the glycosidic bond. The resulting structure is apurinic or apyrimidinic which lacks the coding information and fails to base pair. The CE phosphoramidite of the tetrahydrofuran derivative is commercially available (dSPACER, Glenn Research, Sterling, Va.) as well as other spacer phosphoramidites (Glenn Research, Sterling, Va.). In addition, abasic sites can be introduced by phosphoramidite synthesis.

The effect of abasic substitutions on the HCT of a set of oligonucleotides is shown in Table 12.

TABLE 12

Buffer Type	Oligo Type	HCT*	T_d*	Stringency Factor
1X PCR buffer	normal	24	65	
1X PCR buffer	deoxynebularine	22	64	
0.5 M DMCHAA	normal	18	37	
0.5 M DMCHAA	deoxynebularine	14	32	
1X PCR buffer	normal	18		
1X PCR buffer	abasic (dSPACER)	12		
1X PCR buffer	abasic (C3 spacer)	12		
0.5 M TMATCA	normal	14		
0.5 M TMATCA	abasic (dSPACER)	8		
0.5 M TMATCA	abasic (C3 spacer)	8		
2.0 M LiTCA	normal	12.5	44.5	4.97
2.0 M LiTCA	abasic (dSPACER)deoxynebularine	10	39	6.37
2.0 M LiTCA	abasic (dSPACER)	10	39	6.37
2.0 M LiTCA	abasic (C3 spacer)	10	39	6.25
3.0 M GuSCN	normal	16	35.5	3.85
3.0 M GuSCN	deoxynebularine	12.5	32	5.24

*= ° C.

Column 84, states in part:

Two regions in the bacteriophage lambda DNA sequence (GenBank Accession #J02459) are chosen as the priming sites for amplification. The 5' primer has a stable GC-rich 3' end; the 3' primer is chosen so that a 381 bp product will result from the amplification. The primers used in this example are as follows:

Forward (5') primers:

H17: 5'-GAACGAAAACCCCCCGC-3' (SEQ ID NO: 23)

H14: 5'-CTTCGAAAACCCCCCGC-3' (SEQ ID NO: 24)

H11: 5'-CTTGCTAAACCCCCCGC-3' (SEQ ID NO: 25)

AB1: 5'-GAACGA(dS)AACCCC(dS)CGC-3' (SEQ ID NO: 26)

AB2: 5'-GAACGA(dS)AACCC(dS)CCGC-3' (SEQ ID NO: 27)

AB3: 5'-GAACGA(dS)AACCCCCCG(dS)C-3' (SEQ ID NO: 28)

DN1: 5'-GAACGA(dS)AACCCC(dN)CGC-3' (SEQ ID NO: 26)

DN2: 5'-GAACGA(dNAACCC(dN)CCGC-3' (SEQ ID NO: 27)

DN3: 5'-GAACGA(dN)AACCCCCCG(dN)C-3' (SEQ ID NO: 28)

DN4: 5'-GAACG(dN)AAACCC(dN)CCGC-3' (SEQ ID NO: 29)

DN5: 5'-GAACG(dN)AAACC(dN)CCCGC-3' (SEQ ID NO: 30)

DN6: 5'-CTTCGAAAACCC(dN)CCGC-3' (SEQ ID NO: 31)

Continuing to Column 85:

Reverse (3') primer:
reverse: 5'-GATCGCCCCCAAAACACATA-3' (SEQ ID NO: 32)
(dS) represents "dSPACER" residue and (dN) represents deoxyNebularine residue.

The forward primers are designed with their 5' ends variably mismatched to the target DNA. The H17 primer is a perfect match to the intended target, whereas the primer H14 is complementary only for the 14 nucleotides at the 3' end (the 3 nucleotides at the 5' end are mismatched). All of the primer pairs are used in separate amplification reactions, and the annealing temperature is varied from 25° C. to 65° C. A set of typical results are presented in Table 14, wherein "dNeb." stands for deoxyNebularine. Similar results are obtained for both Taq and Pfu polymerases.

TABLE 14

Primer Name	Number mismatches @ position in primer	Substitutions	Temp. Range (° C.) that amplifications observed
H17	none	none	25 ---> 65
H14	3 @ 5'	none	25 ---> 65
H11	6 @ 5	none	25 ---> 50
AB1	2, @ 7, 14	dSpacer ™	no amplification
AB2	2, @ 7, 13	dSpacer ™	no amplification
AB3	2, @ 7, 16	dSpacer ™	no amplification
DN1	2, @ 7, 14	dNeb.	25 ---> 35
DN2	2, @ 7, 13	dNeb.	25 ---> 35
DN3	2, @ 7, 16	dNeb.	25 ---> 30
DN4	2, @ 6, 13	dNeb.	25 ---> 35
DN5	2, @ 6, 12	dNeb.	25 ---> 35
DN6	2, 3 @ 5', 13	dNeb.	25 ---> 30

These results indicate that the dSpacer substitution prevents the Taq or Pfu DNA polymerase from "reading through" the abasic site. That is, when the polymerase encounters an abasic residue, chain extension is terminated. Therefore, the priming site is not conserved during the second strand synthesis, and amplification of the target nucleic acid is not achieved. However, the polymerases can read through deoxyNebularine residues present in the oligonucleotide primers. Most likely, but not verified, deoxythymidine is inserted as the complementary base to deoxyNebularine. However, the temperature range over which amplification is achieved is reduced compared to the temperature range for amplification using the H17 primer (from 25° C.–65° C. down to 25° C. to approximately 35° C.). It is therefore apparent that the deoxyNebularine substituted primers can substantially increase the specificity of the PCR reaction. Priming was improved which led to the amplification of a specific amplicon.

23. In view of the above showing, and in the absence of convincing evidence to the contrary, the disclosure of Van Ness et al., is considered to meet the limitations of claims 1-19, 21-23, 27, 31-45 and 77-80.

Response to argument

At page 7, bridging to page 8 of the response, applicant states:

> The Office Action emphasized that in Table 14 and column 84 of Van Ness et al. at least one of the primers contains modified nucleotides located at the 5' terminus and within three nucleotides of the 5' terminus. Applicants respectfully submit, however, that the Examiner has misidentified the abasic primers disclosed in Van Ness et al. Specifically, in the primers disclosed in column 84, "dS" represents the abasic dSPACER nucleotide and "dN" represents deoxynebularine. See Van Ness et al. at col. 85, lines 4-5. As can be seen from the sequences listed in column 84, lines 47-49, primers H17, H14, and H11 do not contain any abasic or modified nucleotides because there are no "dS" or "dN" present in the primer sequences. Further, in Table 14, Van Ness c/ al. discloses that these particular primers only contain mismatches and are without any substitutions. Thus, primers H17, H14, and H1 1 of Van Ness et al. do not contain any template-deficient nucleotides, as recited in the present invention.

24. While agreement is reached in that Table 14 does contain some primers that do not have an abasic or modified nucleotide, Table 14, *supra*, clearly and explicitly teaches the incorporation of just such modified nucleotides in other primers as well as the use of said primes in amplification reactions.

25. At page 8 of the response applicant asserts:

> Moreover, there is no motivation, suggestion, or other teaching in Van Ness et al. to use a template-deficient oligonucleotide as a primer in a nucleic acid amplification reaction where the number and composition of template-capable nucleotides 3' of the template-deficient nucleotide closest to the 3' end can alone effectively prime nucleic acid synthesis. Rather, Van Ness et al. teaches only the insertion of an abasic nucleotide or deoxynebularine into an oligonucleotide to improve priming specificity since these nucleotides decrease the helical coil transition temperature (HCT) of the oligonucleotide.

26. The above argument ahs been fully considered and has not been found persuasive. Van Ness et al., column 85, as reproduced above, state unequivocally "It is therefore apparent that the deoxyNebularine substituted primers can substantially increase the specificity of the PCR reaction. Priming was improved which led to the amplification of a specific amplicon." Clearly, such teaching provides motivation to those of skill in the art to use just such nucleotides in their primers. In none of the primers disclosed by Van Ness et al., where a template deficient nucleotide had been incorporated was such a nucleotide at the 3' position of the primers. Accordingly, the primers had the "template deficient" nucleotide at a position that allowed for not only efficient priming, but priming with "increased specificity." Such a showing is considered to anticipate the claimed invention or render same obvious to one of ordinary skill in the art at the time that the invention was made. Accordingly, and in the absence of convincing evidence to the contrary, the rejection is maintained.

Conclusion

27. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

28. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley L. Sisson whose telephone number is (703) 308-3978. The examiner can normally be reached on 6:30 a.m. to 5 p.m., Monday through Thursday.

30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on (703) 308-1119. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9307 for After Final communications.

31. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

B. L. Sisson

Bradley L. Sisson
Primary Examiner
Art Unit 1634

BLS
July 8, 2003